

WHAT IS CLAIMED IS:

1. A device comprising:
 - a first portion of an inductor disposed in a first layer of a multilayer substrate;
 - a second portion of the inductor disposed in a second layer of the multilayer substrate, the second portion coupled to the first portion; and
 - 5 a shielding plane disposed between the first portion and the second portion.
2. A device according to Claim 1, wherein the shielding plane comprises a ground plane.
- 10 3. A device according to Claim 1, wherein current is to flow in a first direction in the first portion of the inductor and in a second direction opposite to the first direction in the second portion of the inductor.
- 15 4. A device according to Claim 1, further comprising:
 - a third portion of the inductor disposed in a third layer of the multilayer substrate, the third portion coupled to the second portion; and
 - 20 a second shielding plane disposed between the second portion and the third portion.
5. A device according to Claim 1, wherein the inductor comprises a spiral turn inductor.
- 25 6. A device according to Claim 1, further comprising:
 - a via to couple the first portion to the second portion.

7. A device according to Claim 1, further comprising:

a pin-through hole to couple the first portion to the second portion.

8. A device according to Claim 1, further comprising:

5 a dielectric disposed between the first layer and the shielding plane and between the second layer and the shielding plane.

9. A method comprising:

fabricating a first layer of a multilayer substrate comprising a first portion of an

10 inductor;

fabricating a second layer of the multilayer substrate above the first layer, the second layer comprising a shielding plane; and

fabricating a third layer of the multilayer substrate above the second layer, the third layer comprising a second portion of the inductor,

15 wherein the second layer comprises a coupling to electrically couple the first portion of the inductor to the second portion of the inductor.

10. A method according to Claim 9, wherein the shielding plane comprises a ground plane.

20

11. A method according to Claim 9, wherein current is to flow in a first direction in the first portion of the inductor and in a second direction opposite to the first direction in the second portion of the inductor.

25 12. A method according to Claim 9, further comprising:

fabricating a fourth layer of the multilayer substrate above the third layer, the fourth layer comprising a second shielding plane; and

fabricating a fifth layer of the multilayer substrate above the fourth layer, the fifth layer comprising a third portion of the inductor,

5 wherein the fourth layer comprises a second coupling to electrically couple the second portion of the inductor to the third portion of the inductor.

13. A system comprising:

an integrated circuit package comprising:

10 a first portion of an inductor disposed in a first layer of the integrated circuit package;

a second portion of the inductor disposed in a second layer of the integrated circuit package, the second portion coupled to the first portion; and

a shielding plane disposed between the first portion and the second portion;

15 and

a double data rate memory in communication with the integrated circuit package.

14. A system according to Claim 13, further comprising:

an integrated circuit die coupled to the integrated circuit package, the integrated

20 circuit package to transmit data between the integrated circuit die and the memory.

15. A system according to Claim 13, wherein the shielding plane comprises a ground plane.

16. A system according to Claim 13, wherein current is to flow in a first direction in the first portion of the inductor and in a second direction opposite to the first direction in the second portion of the inductor.

5

17. A system according to Claim 13, further comprising:
a third portion of the inductor disposed in a third layer of the multilayer substrate, the third portion coupled to the second portion; and
a second shielding plane disposed between the second portion and the third portion.